

AMENDMENTS TO THE DRAWINGS

Please replace the drawings presently on file with the attached drawings which contain no changes from the previous drawings but are of better legibility.

REMARKS

Favorable reconsideration is respectfully requested.

Upon entry of the above amendment, the claims are 10-17.

Claim 10 replaces previous claim 1.

Claims 11 to 17 replace previous claims 3 to 9, respectively.

New claim 10 incorporates the features of previous claims 1 and 2 and additionally recites the ratio of organic polymer to composite oxide.

Support is evident from the paragraph bridging pages 4 and 5 as well as the paragraph bridging pages 8 and 9 and in particular, the disclosure at page 9, line 15.

The significance of this amendment will become further apparent from the remarks below.

Turning to the rejections on prior art:

Claims 1 and 4 to 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Remy U.S. 6,224,884.

Claims 8 to 9 are rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Remy '884.

Claims 1 to 9 are rejected under 35 U.S.C. 102(a) as being anticipated by Tada et al. WO 98/27021 (translated in U.S. 6,379,776).

Claims 8 to 9 are rejected under 35 U.S.C. 102(a) as anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Tada '776.

Claims 2 to 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Remy '884.

These rejections are respectfully traversed.

None of the cited references, alone or combined disclose or suggest a process for producing anatase titania or a composite oxide containing same by the production of a gel from a hydrolyzable titanium compound and an organic polymer wherein the gel, once formed, is allowed to react with water at the specified temperature and wherein the ratio of organic polymer to composite oxide is from 0.1 to 10 on the basis of weight ratio.

The formation of a gel and the reaction of the gel with hot water is essential to the success of the process, as disclosed, for example, in the last full paragraph on page 6 of the present specification.

Further, as disclosed on page 8, first full paragraph, the addition of the organic polymer to the solution containing the hydrolyzable titanium compound affects the specific surface area or porosity of the anatase titania or composite oxide containing the same.

These features are in no way disclosed or suggested by the cited references, alone or combined.

These features clearly are not a routine modification of the prior art which does not correlate specific surface area or porosity with gel formation and hydrolysis.

With regard to the comment towards the bottom of page 5 of the Official Action regarding claim 7 that it would have been obvious to form a gel film on a substrate to produce a film in the process of Remy '884 because Remy '884 discloses forming a film and solubility on a support, one can form a film without going through the gel state which, as discussed above, affects surface area and porosity.

See the full paragraph on page 8 of the present specification in this regard.

Further, see Comparative Example 1 on page 19 of the present specification where heat treatment of film at temperatures exceeding 100°C produced unsatisfactory properties.

Also note that Tada, in column 4, lines 24 to 29, mentions heating at 450 to 650°C or in column 18, lines 20 to 22, baking at 500°C.

Similarly, see Remy who heats at high temperature as disclosed in column 10, lines 47 to 50.

In Comparative Example 2 on page 20 of the present specification, gel films produced in the absence of polymer are unsatisfactory. There is nothing in the combined reference teachings which appreciates this fact.


In view of the foregoing, it is apparent that the rejections on prior art are untenable and should be withdrawn.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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